Cardiology Corner: JACC Chest Pain Update

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- These guidelines were put together by a number of organizations including SAEM, AHA, ACC and CHEST and, as a result, will be widely quoted and used.
- However, Amal had an issue with the fact that there was only one emergency physician representing one EM organization and AAEM and ACEP were not included.
- Gross errors in the document:
    - Number 1 (page 10): Relief of pain by nitroglycerin means the pain is cardiac in nature. There is ample evidence disputing this and, the author dispute it themselves later in the document (page 12)
    - Number 2 (page 16): State that 90% of PE patients have chest pain AND shortness of breath. This is false. Perhaps, the authors mean “90% of patients with PE have chest pain OR shortness of breath.”

    - Number 3 (page 18): State that up to 6% of patients with evolving ACS are discharged from the ED. This is derived from references from 1987-2002 but this claim has been debunked.
    - Number 4 (page 28): Table indicates a HEART score < 3 is low risk but it should be a HEART score < 3.
- Things in article Amal disagrees with:
    - Atypical Chest Pain
        - The authors want to eliminate the term "atypical chest pain" which Amal agrees with as it may be misleading.
        - However, they want to replace it with "non-cardiac chest pain" which is much worse because without a cardiac catheterization, you can't know if the symptoms are non-cardiac in nature.
        - Amal argues that the better term is "low risk chest pain."
    - The authors argue (page 10) that the probability of ischemia can be based on the descriptors patients use for their chest pain but, the evidence tells us this is not true.
    - "Warranty Period"
        - Authors argue for a "warranty period" of prior cardiac testing:
            - Normal angio: 2 years.
            - Clean CCTA: 2 years.
            - Normal stress: 1 year.
        - The idea of a warranty is misguided as there are no guarantees.
        - More importantly, the evidence disagrees with the 1 year safe period after a normal stress test.
            - Prior literature argues that a negative stress test does not offer this level of protection.
            - Page 36: 6-15% of troponin positive ACS occurs in the absence of obstructive CAD (defined as < 50% occlusion which is often associated with negative stress tests.)
        - Patients with a normal angio or a clean CCTA are at very low risk of ACS up to 2 years after the test.
- Good stuff in the document:
    - Stresses the importance of doing a good history and physical examination in patients with chest pain.
        - Recommend using the term "chest discomfort" instead of "chest pain."
        - Recommend asking about pain nature, onset, duration, location, radiation, severity, alleviating/aggravating factors and associated symptoms.

- State that intensity/severity do not correlate with seriousness of disease.

- Discussion of signs and symptoms of ACS in women.
  - Women are less likely to get timely and appropriate care.
  - Women are more likely to have alternative symptoms than men (chest pain is still the #1 symptom) and they are more likely to present with more symptoms than men.
- Discuss equity in evaluations: Black, LatinX, South Asian, Medicaid and uninsured patients get less aggressive workups and treatment and have higher morbidity and mortality.
- State that patients with low risk for ACS (< 1% risk of MACE at 30 days) do not require an urgent workup and can be discharged.
  - No evidence to support benefit of stress tests or cardiac imaging within 30 days of ED visit for low risk patients.
  - Endorse clinical decision pathways (HEART, EDACS, ADAPT etc).
- Intermediate or high-risk patients can get further testing:
  - If < 65 yo or less obstructive disease is suspected, prefer CCTA
  - If > 65 yo or more obstructive disease is suspected, prefer stress testing. If either is equivocal, then repeat with the other test!

References

2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain. JACC 2021

EM:RAP 2021 April: Women and Chest Pain: https://www.emrap.org/episode/emrap2021april/womenandchest

***Core*Pendium: Acute Coronary Syndromes** https://www.emrap.org/corependium/chapter/rec8tYnfjz2FpdGrE/Acute-Coronary-Syndromes